

REMARKS/ARGUMENTS:

Claim 1 is amended. Support for the amendment to claim 1 can be found at p. 162, line 10-p. 163, line 2; p. 164, line 9-p. 165, line 5; p. 218, lines 7-21; and p. 220, lines 4-24 of Applicant's specification. Claims 1 and 3-34 are pending in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

The present invention relates to a fuel cell casing that is capable of accommodating a membrane electrode assembly, made of ceramics, small and highly reliable, a fuel cell using the same and electronic apparatus, and further relates to electronic apparatus having a fuel cell as a power source which fuel cell is a small, highly reliable, capable of accommodating a membrane electrode assembly and made of multilayer ceramics. (Applicant's specification, at p. 1, lines 5-11).

CLAIM REJECTIONS UNDER 35 U.S.C. § 103:

Claims 1, 7, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pratt (U.S. Patent No. 6,127,058) in view of Bronoel (U.S. Patent Publication No. 2001/0006745) and Haluzak (U.S. Patent No. 7,018,734). Applicant respectfully traverses this rejection as to amended claim 1. Claim 1, as amended, is as follows:

A fuel cell casing comprising:

a base body made of multi-layer ceramics having a concavity for housing a membrane electrode assembly formed on one surface thereof, the membrane electrode assembly having, in one principal surface and another principal surface thereof, a first electrode and a second electrode, respectively;

a first fluid channel formed so as to extend from a bottom surface of the concavity facing the one principal surface of the membrane electrode assembly to an outer surface of the base body, the first fluid channel being for a first fluid;

a first wiring conductor having its one end disposed on the bottom surface of the concavity facing the first electrode of the membrane electrode assembly, and its other end led out toward the outer surface of the base body;

a lid body mounted on the one surface of the base body near the concavity so as to cover the concavity, for air-tightly sealing the concavity;

a second fluid channel formed so as to extend from one surface of the lid body facing the other principal surface of the membrane electrode assembly to an outer surface of the lid body, the second fluid channel being for a second fluid different from the first fluid;

a second wiring conductor having its one end disposed on the one surface of the lid body facing the second electrode of the membrane electrode assembly, and its other end led out toward the outer surface of the lid body; and

an internal circuit including resistance, capacitance, or inductance formed in the base body.

Applicant respectfully submits that the cited references cannot render claim 1 obvious, because the cited references fail to teach or suggest "an internal circuit including resistance, capacitance, or inductance formed in the base body."

The Office cites Pratt modified by Haluzak for teaching a set of current collectors on the base body and the lid (applicant's first and second wiring conductors), but acknowledges that Pratt modified by Haluzak does not teach that

the collectors are led to the outer surface of the base body and the lid (or an internal circuit).

The Office at p. 4, lines 7-13 of the present Office Action states,

“However, Bronoel teaches a bipolar collector for a solid polymer electrolyte fuel cell whereof the electronic conduction is provided by uniformly distributed metal cylinders and hereof the tips penetrate into the electrodes. See Abstract. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute Yoshioka’s current collector plates with Bronoel’s metal cylinders for current collection for the benefit of being able to connect the fuel cell with an external power device.”

Applicant respectfully disagrees. Applicant believes the citing of Yoshioka is a typographical error since a Yoshioka reference does not appear in the Office’s 35 U.S.C. § 103(a) rejection. More importantly, the Office fails to refer to the “internal circuit” of the present invention. However, the Office, in copending Application Serial No. 10/721,828, in the Office Action dated October 18, 2007 at p. 6, lines 9-10 states, “Bronoel’s metal cylinders act to establish an internal circuit in the base body.” Consequently, Applicant will proceed as though the Office is adopting a similar position with respect to the present invention. Applicant respectfully submits that the Office fails show what kind of circuit elements the metal cylinders of Bronoel can be. In addition, Bronoel’s objective is to lower the resistance of a collector. Therefore, the metal cylinders cannot provide a useful resistance. Furthermore, Bronoel fails to teach or suggest a capacitance or inductance.

In view of the foregoing, the Applicant respectfully submits that the Office has not met the burden of providing a *prima facie* case of obviousness.

“To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the references.”
MPEP 2142

In light of the foregoing, Applicant respectfully submits that the cited references cannot render claim 1 obvious, because the combination of references fails to teach or suggest each and every claim limitation. Claims 7 and 20 depend from claim 1 and cannot be rendered obvious for at least the same reasons as claim 1. Withdrawal of this rejection is thus respectfully requested.

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Pratt in view of Bronoel and Haluzak as applied to claim 1 above, and further in view of Hayashi (U.S. Patent Publication No. 2002/0146610). Applicant respectfully traverses this rejection.

Claim 3 depends from claim 1 and therefore, cannot be rendered obvious over Pratt, Bronoel, and Haluzak for the reasons discussed above. Hayashi cannot remedy the defect of Pratt, Bronoel, and Haluzak and is not relied upon by the Office for such. Instead, the Office cites Hayashi for teaching a heating element.

In light of the foregoing, Applicant respectfully submits that the cited references cannot render claim 3 obvious, because the combination of references fails to teach or suggest each and every claim limitation. Withdrawal of this rejection is thus respectfully requested.

Applicant believes the foregoing amendments comply with requirements of form and thus may be admitted under 37 C.F.R. § 1.116(b). Alternatively, if these amendments are deemed to touch the merits, admission is requested under 37 C.F.R. § 1.116(c). In this connection, these amendments were not earlier presented because they are in response to the matters pointed out for the first time in the Final Office Action.

Lastly, admission is requested under 37 C.F.R. § 1.116(b) as presenting rejected claims in better form for consideration on appeal.

Appl. No. 10/691,451
Amdt. Dated January 14, 2008
Reply to Office Action of October 18, 2007

Attorney Docket No. 81716.0111
Customer No. 26021

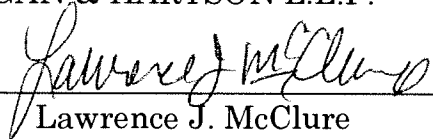
In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (310) 785-4600 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

Date: January 14, 2008

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